



A34606-PCT-USA-A 072975.0111
PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Yumin Mao et al.
Serial No. : 09/938,744 Examiner : Whisenant, Ethan C.
Filed : August 24, 2001 Group Art Unit : 1634
For : METHOD FOR LARGE SCALE cDNA CLONING AND SEQUENCING
BY CIRCULATING SUBTRACTION

INFORMATION DISCLOSURE STATEMENT

I hereby certify that this paper is being deposited with the United States Postal Service as first class mail in an envelope addressed to:
Commissioner for Patents, P.O. Box 1450, Arlington, VA 22313-1450

May 12, 2003

Date of Deposit

Guy F. Birkenmeier

Attorney Name

52,622

PTO Registration No.

Guy F. Birkenmeier
Signature

May 12, 2003

Date of Signature

Commissioner for Patents
P.O. Box 1450
Arlington, VA 22313-1450

Dear Sir:

In accordance with 37 C.F.R. §1.56 and §1.97(c)(2), Applicant respectfully requests that the documents relating to the above-identified application listed herein in reverse chronological alphabetical order be considered and made of record in the U.S. Patent and Trademark Office.

1. Anonymous product literature, July 1998, "Improved SMART™ PCR cDNA Library Construction Kit User Manual (PT3000-1)" Clontech 13(3):1-2;

2. Carninci P et al., 1996, "High-efficiency full-length cDNA cloning by biotinylated CAP trapper" *Genomics* 37:327-336;
3. Lennon GG et al., 1996, "The I.M.A.G.E. Consortium: An integrated molecular analysis of genomes and their expression" *Genomics* 33:151-152;
4. Adams MD et al., 1995, "Initial assessment of human gene diversity and expression patterns based upon 83 millions nucleotides of cDNA sequence" *Nature* 377:3-174;
5. Berry R et al., 1995, "Gene-based sequence-tagged-sites(STSs) as the basis for a human gene map" *Nature Genet.* 10:415-423;
6. Houlgatte R et al., 1995, "The Genexpress Index: A resource for gene discovery and genic map of human genome" *Genome Res.* 5:272-304;
7. Maruyama K et al., 1994, "Oligo-capping: a simple methods to replace the cap structure of eukaryotic mRNAs with oligoribonucleotides" *Gene* 138:171-174;
8. Barnes WM, 1994, "PCR amplification of up to 35-kb DNA with high fidelity and high yield from lambda bacteriophage templates" *Proc.Natl.Acad.Sci.* 91:2216-2220;
9. Soares MB et al., 1994, "Construction and characterization of a normalized cDNA library" *Proc.Natl.Acad.Sci.* 91:9228-9232;
10. Soares MB, 1994, "Construction of directionally cloned cDNA libraries in phagemid vectors" In *Automated DNA sequencing and analysis* (ed. M.D.Adams, C.Fields and J.C.Venter), pp.110-114. Academic Press, New York, NY;
11. Adams MD et al., 1993, "3,400 new expressed sequence tags identify diversity of transcripts in human brain" *Nature Genet.* 4:256-267;
12. Adams MD et al., 1993, "Rapid cDNA sequencing (expressed sequence tags) from a directionally cloned human infant brain cDNA library" *Nature Genet.* 4:373-380;
13. Hoheisel JD, 1993, "On the activities of Escherichia coli exonuclease III" *Anal.Biochem.* 209:238-246;
14. Adams MD et al., 1992, "Sequence identification of 2,375 human brain genes" *Nature* 355:632-634;
15. Khan AS et al., 1992, "Single pass sequencing and physical and genetic mapping of human brain cDNAs" *Nature Genet.* 2:180-185;
16. McCombie WR et al., 1992, "Caenorhabditis elegans expressed sequence tags identify gene families and potential disease gene homologues" *Nature Genet.* 1:124-131;

17. Okubo KN et al., 1992, "Large Scale cDNA sequencing for analysis of quantitative and qualitative aspects of gene expression" *Nature Genet.* 2:173-179;
18. Adams MD et al., 1991, "Complementary DNA sequencing: Expressed sequence tags and Human Genome Project" *Science* 252:1651-1656;
19. Patanjali SR et al., 1991, "Construction of a Uniform-Abundance (Normalized) cDNA Library" *Proc. Natl. Acad. Sci. USA* 88:1943-1947;
20. Altschul SF et al., 1990, "Basic local alignment search tool" *J.Mol.Biol.* 215: 403-410;
21. Ko MSH, 1990, "An 'equalized cDNA library' by the reassociation of short double-stranded cDNAs" *Nucleic Acids Res.* 18:5705-5711;
22. Rubenstein JLR et al., 1990, "Subtractive hybridization system using single-stranded phagemids with directional inserts" *Nucleic Acids Res.* 18:4833-4842;
23. Chorney MJ et al., 1990, "Transcriptional analysis, physical mapping, and molecular characterization of a nonclassical human leukocyte antigen class I gene" *Mol. Cell. Biol.* 10:243-253;
24. Hawkins JD, 1988, "A survey on intron and exon lengths" *Nucleic Acids Res.* 16:9893-9908;
25. Li H et al., 1988, "Amplification and analysis of DNA sequences in single human sperm and diploid cells" *Nature (London)* 335:414-417;
26. Vieira J et al., 1987, "Production of single-stranded plasmid DNA" *Methods Enzymol.* 153: 3-11;
27. Weissman SM, 1987, "Molecular genetic techniques for mapping the human genome" *Mol. Biol Med.* 4:133-143;
28. Dente L et al., 1983, "pEMBL: a new family of single stranded plasmids" *Nucleic Acids Res.* 11:1645-1655;
29. Feinberg AP et al., 1983, "A technique for radiolabeling DNA restriction endonuclease fragments to high specific activity" *Anal. Biochem.* 132:6-13;
30. Feinberg AP et al., 1983, "A technique for radiolabeling DNA restriction endonuclease fragments to high specific activity" *Anal. Biochem.* 137:266-267 (addendum);
31. Davidson EH et al., 1979, "Regulation of gene expression: Possible role of repetitives sequences" *Science* 204:1052-1059;

32. Galau GA et al., 1977, "Studies on nucleic acid reassociation kinetics: rate of hybridization of excess RNA with DNA, compared to the rate of DNA renaturation" Proc. Natl. Acad. Sci. USA 74:1020-1023;
33. Grunstein M et al., 1975, "Colony hybridization: a method for the isolation of cloned DNAs that contain a specific gene" Proc. Natl. Acad. Sci. USA 72:3961-3965;
34. Smith MJ et al., 1975, "Studies on nucleic acid reassociation kinetics: reactivity of single-stranded tails in DNA-DNA renaturation" Proc. Natl. Acad. Sci. USA 72:4805-4809;
35. Stafford DW et al., 1975, "Concentration of DNA solutions by extraction with 2-butanol" Biochem. Biophys. Acta. 378:18-21;
36. Britten RJ et al., 1974, "Analysis of repeating DNA sequences by reassociation" Methods Enzymol. 29:363-418; and
37. Bishop JO et al., 1974, "Three abundance classes in Hela cell messenger RNA" Nature 250:199-204.

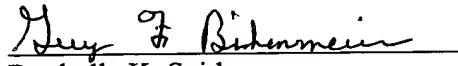
The referenced citations are listed in the accompanying PTO Form 1449. Copies of the documents are submitted herewith in one bound volume.

Identification of the documents listed in the attached PTO Form 1449 is not to be construed as an admission of Applicants or Attorneys for Applicants that such documents are available as "prior art" against the above-identified application.

Applicants enclose herewith the fee required under 37 C.F.R. §1.17(p) and §1.97(c)(2). Applicants do not believe that any additional fees are required with this paper. Nevertheless, the Commissioner is hereby authorized to charge any fees occasioned by this submission not otherwise enclosed herewith to Deposit Account No. 02-4377. Please credit any overpayment of fees associated with this filing to the above-identified deposit account. A duplicate of this page is enclosed.

Respectfully submitted,

May 12, 2003


Rochelle K. Seide
PTO Reg. No. 32,300
Attorney for Applicants

Guy F. Birkenmeier
PTO Reg. No. 52,622
Agent for Applicants

BAKER BOTTS, L.L.P.
30 Rockefeller Plaza
New York, NY 10112
(212) 408-2500

Enclosures

Form PTO-1449 U.S. Department of Commerce
(REV. 2-82) Patent and Trademark Office

Atty. Docket No.
A34606-PCT-USA-A

Serial No.
09/938,744



**INFORMATION DISCLOSURE STATEMENT
BY APPLICANT**

(Use several sheets if necessary)

Applicant
Yumin MAO et al.

Filing Date
August 24, 2001

Group
1634

U.S. PATENT DOCUMENTS

*Exam. Init.	Document No.	Date	Name	Class	Subclass	Filing Date if Appropria

FOREIGN PATENT DOCUMENT

Document No.	Date	Country	Class	SubClass	Translator Yes No

OTHER DOCUMENTS (including Author, Title Date, Pertinent Pages, Etc.)

1.	Anonymous product literature, July 1998, "Improved SMART™ PCR cDNA Library Construction Kit User Manual (PT3000-1)" Clontechiques 13(3):1-2
2.	Carninci P et al., 1996, "High-efficiency full-length cDNA cloning by biotinylated CAP trapper" Genomics 37:327-336
3.	Lennon GG et al., 1996, "The I.M.A.G.E. Consortium: An integrated molecular analysis of genomes and their expression" Genomics 33:151-152
4.	Adams MD et al., 1995, "Initial assessment of human gene diversity and expression patterns based upon 83 millions nucleotides of cDNA sequence" Nature 377:3-174
5.	Berry R et al., 1995, "Gene-based sequence-tagged-sites(STSs)as the basis for a human gene map" Nature Genet. 10:415-423
6.	Houlgatte R et al., 1995, "The Genexpress Index: A resource for gene discovery and genic map of human genome" Genome Res. 5:272-304
7.	Maruyama K et al., 1994, "Oligo-capping: a simple methods to replace the cap structure of eukaryotic mRNAs with oligoribonucleotides" Gene 138:171-174
8.	Barnes WM, 1994, "PCR amplification of up to 35-kb DNA with high fidelity and high yield from lambda bacteriophage templates" Proc.Natl.Acad.Sci. 91:2216-2220

NY02:440935.1

Examiner

Date Considered

* Examiner: Initial citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if no conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449 U.S. Department of Commerce
(REV. 2-82) Patent and Trademark Office

Atty. Docket No.
A34606-PCT-USA-A

Serial No.
09/938,744



**INFORMATION DISCLOSURE STATEMENT
BY APPLICANT**

(Use several sheets if necessary)

Applicant
Yumin MAO et al.

Filing Date
August 24, 2001

Group
1634

		Soares MB et al., 1994, "Construction and characterization of a normalized cDNA library" Proc.Natl.Acad.Sci. 91:9228-9232
10.		Soares MB, 1994, "Construction of directionally cloned cDNA libraries in phagemid vectors" In Automated DNA sequencing and analysis (ed. M.D.Adams, C.Fields and J.C.Venter), pp.110-114. Academic Press, New York, NY
11.		Adams MD et al., 1993, "3,400 new expressed sequence tags identify diversity of transcripts in human brain" Nature Genet. 4:256-267
12.		Adams MD et al., 1993, "Rapid cDNA sequencing (expressed sequence tags) from a directionally cloned human infant brain cDNA library" Nature Genet. 4:373-380
13.		Hoheisel JD, 1993, "On the activities of Escherichia coli exonuclease III" Anal.Biochem. 209:238-246
14.		Adams MD et al., 1992, "Sequence identification of 2,375 human brain genes" Nature 355:632-634
15.		Khan AS et al., 1992, "Single pass sequencing and physical and genetic mapping of human brain cDNAs" Nature Genet. 2:180-185
16.		McCombie WR et al., 1992, "Caenorhabditis elegans expressed sequence tags identify gene families and potential disease gene homologues" Nature Genet. 1:124-131
17.		Okubo KN et al., 1992, "Large Scale cDNA sequencing for analysis of quantitative and qualitative aspects of gene expression" Nature Genet.2:173-179
18.		Adams MD et al., 1991, "Complementary DNA sequencing: Expressed sequence tags and Human Genome Project" Science 252:1651-1656
19.		Patanjali SR et al., 1991, "Construction of a Uniform-Abundance (Normalized) cDNA Library" Proc. Natl. Acad. Sci. USA 88:1943-1947
20.		Altschul SF et al., 1990, "Basic local alignment search tool" J.Mol.Biol. 215: 403-410
21.		Ko MSH, 1990, "An 'equalized cDNA library' by the reassociation of short double- stranded cDNAs" Nucleic Acids Res.18:5705-5711
22.		Rubenstein JLR et al., 1990, "Subtractive hybridization system using single-stranded phagemid with directional inserts" Nucleic Acids Res. 18:4833-4842

NY02:440935.1

Examiner

Date Considered

* Examiner: Initial citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if no conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449 U.S. Department of Commerce
(REV. 2-82) Patent and Trademark Office

Atty. Docket No.
A34606-PCT-USA-A

Serial No.
09/938,744



**INFORMATION DISCLOSURE STATEMENT
BY APPLICANT**

(Use several sheets if necessary)

Applicant
Yumin MAO et al.

Filing Date
August 24, 2001

Group
1634

23.		Chorney MJ et al., 1990, "Transcriptional analysis, physical mapping, and molecular characterization of a nonclassical human leukocyte antigen class I gene" Mol. Cell. Biol. 10:243-253
24.		Hawkins JD, 1988, "A survey on intron and exon lengths" Nucleic Acids Res. 16:9893-9908
25.		Li H et al., 1988, "Amplification and analysis of DNA sequences in single human sperm and diploid cells" Nature (London) 335:414-417
26.		Vieira J et al., 1987, "Production of single-stranded plasmid DNA" Methods Enzymol. 153: 3-11
27.		Weissman SM, 1987, "Molecular genetic techniques for mapping the human genome" Mol. Biol Med. 4:133-143
28.		Dente L et al., 1983, "pEMBL: a new family of single stranded plasmids" Nucleic Acids Res. 11:1645-1655
29.		Feinberg AP et al., 1983, "A technique for radiolabeling DNA restriction endonuclease fragments to high specific activity" Anal. Biochem. 132:6-13
30.		Feinberg AP et al., 1983, "A technique for radiolabeling DNA restriction endonuclease fragments to high specific activity" Anal. Biochem. 137:266-267 (addendum)
31.		Davidson EH et al., 1979, "Regulation of gene expression: Possible role of repetitives sequences" Science 204:1052-1059
32.		Galau GA et al., 1977, "Studies on nucleic acid reassociation kinetics: rate of hybridization of excess RNA with DNA, compared to the rate of DNA renaturation" Proc. Natl. Acad. Sci. USA 74:1020-1023
33.		Grunstein M et al., 1975, "Colony hybridization: a method for the isolation of cloned DNAs that contain a specific gene" Proc. Natl. Acad. Sci. USA 72:3961-3965
34.		Smith MJ et al., 1975, "Studies on nucleic acid reassociation kinetics: reactivity of single-stranded tails in DNA-DNA renaturation" Proc. Natl. Acad. Sci. USA 72:4805-4809
35.		Stafford DW et al., 1975, "Concentration of DNA solutions by extraction with 2-butanol" Biochem. Biophys. Acta. 378:18-21

NY02:440935.1

Examiner

Date Considered

* Examiner: Initial citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if no conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449 U.S. Department of Commerce
(REV. 2-82) Patent and Trademark Office

Atty. Docket No.
A34606-PCT-USA-A

Serial No.
09/938,744

**INFORMATION DISCLOSURE STATEMENT
BY APPLICANT**

(Use several sheets if necessary)

Applicant
Yumin MAO et al.

Filing Date
August 24, 2001

Group
1634

36. Britten RJ et al., 1974, "Analysis of repeating DNA sequences by reassociation" Methods
Enzymol. 29:363-418

37. Bishop JO et al., 1974, "Three abundance classes in Hela cell messenger RNA" Nature
250:199-204

NY02:440935.1

Examiner

Date Considered

* Examiner: Initial citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if no conformance and not considered. Include copy of this form with next communication to applicant.